ORIGINAL

LAW OFFICES
LEVENTHAL, SENTER & LERMAN
SUITE 600
2000 K STREET, N.W.
WASHINGTON, D.C. 20006-1809

NORMAN P. LEVENTHAL
MEREDITH S. SENTER, JR.
STEVEN ALMAN LERMAN
RAUL R. RODRIGUEZ
DENNIS P. CORBETT
BRIAN M. MADDEN
BARBARA K. GARDNER
STEPHEN D. BARUCH
SALLY A. BUCKMAN
NANCY L. WOLF
DAVID S. KEIR
DEBORAH R. COLEMAN
BERNARD A. SOLNIK
NANCY A. ORY
WALTER P. JACOB
LINDA D. FELDMANN
RENÉE L. ROLAND
JOHN D. POUTASSE*

*ADMITTED MD ONLY

TELEPHONE
(202) 429-8970

TELECOPIER
(202) 293-7783

SENIOR COMMUNICATIONS
CONSULTANT
MORTON I. HAMBURG

WRITER'S DIRECT DIAL
202-416-6770

WRITER'S E-MAIL
BMADDEN@LSL-LAW.COM

November 21, 1996

VIA HAND DELIVERY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, NW
Room 222
Washington, DC 20554

Dear Mr. Caton:

On behalf of Sarkes Tarzian, Inc., there are transmitted herewith an original and five copies of its Comments in response to the Commission's Sixth Further Notice of Proposed Rule Making in MM Docket No. 87-268.

If any additional information is desired in connection with this matter, please contact the undersigned counsel.

Sincerely,

Brian M. Madden

BMM/tlm
Enclosure

BEFORE THE

ORIGINAL

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of

Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service	)))	MM Docket No. 87-268

To: The Commission

COMMENTS OF SARKES TARZIAN, INC.

Sarkes Tarzian, Inc. ("STI"), by its attorneys, hereby submits these comments with respect to the Commission's Sixth Further Notice of Proposed Rule Making in MM Docket No. 87-268, FCC 96-207, released August 16, 1996 ("Notice").[1]

STI is the licensee of Station WRCB-TV, Channel 3, Chattanooga, Tennessee, and of Station KTVN(TV), Channel 2, Reno, Nevada. These comments relate most particularly to Station KTVN, for which neither the DTV Table of Allotments proposed by the Commission in the Notice (the "DTV Table") nor the Modified Table proposed by the Broadcasters' Caucus (the "Modified Table") provides a significantly high degree of matching between the area covered by the station's present NTSC operation area and its potential DTV operation: the Commission's DTV Table proposes a match of only 77.5 percent, and the Modified Table of the Broadcasters' Caucus proposes a match of only 76.5 percent. In these comments, STI will advance alternative

---

[1] STI is also a signatory to the Broadcasters' Comments being filed in response to the Notice on behalf of the Broadcasters' Caucus and a number of individual station licensees. In the main, STI endorses and supports the Broadcasters' Comments; however, as indicated in that filing, not every signatory subscribes to each aspect of those comments in their entirety and, as in STI's case, certain individual licensees will be filing separate comments.

proposals that afford a much better match between the present NTSC service area of KTVN and the area served by DTV operation.

Both the Commission and the Broadcasters' Caucus have acknowledged that the allotment of DTV channels should be accomplished in such a manner so as to minimize viewer disruption through a replication of existing service areas and to maximize flexibility in the establishment of DTV operation. STI endorses these principles, and urges that the Commission allow licensees the greatest degree of flexibility practicable in proposing DTV operation. In particular, STI submits that the DTV Table should consider DTV operation from locations at other than the licensed NTSC transmitter site in those circumstances when DTV operation from a separate site can be made without creating unacceptable new interference to either DTV or NTSC service areas of other stations, and where such separate operation would result in significant maximization of DTV service and better NTSC/DTV matching than operation from a common site. As shown herein, through relocation of its DTV site, KTVN can achieve a substantial improvement in the number of people and area to be served by interference-free DTV operation without creating undue interference to either existing NTSC or proposed DTV operation of any other station.

Because of the poor degree of matching between KTVN's NTSC operation and the DTV channel proposed by either the Commission or the Broadcasters' Caucus, STI asked its consulting engineer, Bernard Segal, and the Broadcasters' Caucus to review alternatives to the respective DTV proposals. Mr. Segal has determined that, so long as KTVN's DTV operation is assumed to originate from the station's licensed NTSC transmitter site at McClellan Peak, terrain factors limit greatly any ability of STI to achieve by its DTV operation even a reasonable

replication of its NTSC coverage. As Mr. Segal explains in the accompanying Engineering Statement, the preferred transmitter site for stations serving the Reno, Nevada market is Slide Mountain. In the past, STI has tried but has been unable to secure Commission approval to operate KTVN from Slide Mountain as a consequence of the Commission's distance separation requirements; a request for waiver to allow KTVN to operate from Slide Mountain despite the provision of equivalent protection to a short-spaced station was denied by the Commission in 1985, as noted by Mr. Segal. Engineering Statement at 3. However, operation as a DTV channel does not require the same severe separation restrictions, and STI can propose operation of its DTV channel from Slide Mountain consistent with the interference considerations which are inherent in the design of the allotment tables advanced by both the Commission and the Broadcasters' Caucus. Id.

Mr. Segal summarizes in the Engineering Statement the advantages of DTV operation for KTVN from Slide Mountain on either Channel 13 or Channel 39. As an alternative, Mr. Segal has also analyzed DTV operation for KTVN from McClellan Peak, its licensed NTSC site, on Channel 13 instead of Channel 39 as proposed in both the DTV Table and the Modified Table. Any of the following alternative allotments results in a substantial improvement in the interference-free DTV coverage of KTVN.

The proposed DTV operation for KTVN from McClellan Peak on Channel 39 would provide only approximately 77 percent matching when compared to KTVN's present NTSC operation; this deficiency represents a loss of approximately 54,800 people and a loss in total service area of more than 8,000 square kilometers. Engineering Statement at Figure 1. While a direct comparison in terms of the replication of service area for DTV operation from Slide

Mountain cannot readily be developed utilizing the existing methodology, Engineering Statement at 6, DTV operation on Channel 13 from Slide Mountain would result in interference-free DTV service to more than 528,600 people within an area of more than 39,000 square kilometers, representing 117 percent of KTVN's licensed NTSC service population and 109 percent of KTVN's licensed NTSC area of service; DTV operation in this manner would increase the number of people to receive interference-free DTV service from KTVN by more than 33 percent over the current proposals. Engineering Statement at Figure 1.

DTV operation from Slide Mountain on Channel 39 would also result in interference-free service gains — rather than losses — of more than 22,000 people. Id. Moreover, operation on either Channel 13 or 39 from Slide Mountain would be achieved at a significantly reduced power level and would permit common antenna orientation within the Reno television market with Station KOLO, now operating from Slide Mountain.[2]

STI greatly prefers a DTV allotment on Channel 13, or alternatively Channel 39, from Slide Mountain. As an alternative, STI submits that DTV operation from its licensed site on McClellan Peak on Channel 13 would afford a much closer match to the current NTSC operation of KTVN than does operation from this site on Channel 39 as now proposed; as set forth in Figure 1 to the Engineering Statement, DTV operation of KTVN on Channel 13 from McClellan Peak results in interference-free service to nearly 48,000 more people and an area larger by more than 3,750 square kilometers than does DTV operation from McClellan Peak on Channel 39, again at a significant reduction in power.

---

[2] By way of comparison, the degree that KOLO's NTSC and DTV operations match is projected to be better than 99 percent. *See* DTV Table and Modified Table.

Although each of the alternatives for DTV operation set forth in these comments results in some additional interference to the NTSC or DTV operation of other channels, *see* Engineering Statement at Figure 1, the degree of such interference is well within the parameters utilized by the Commission in developing the DTV Table. Engineering Statement at 3-4. Indeed, interference to the DTV operation on Channel 43 proposed for Station KNPB(TV), Reno, Nevada, by operation of KTVN on Channel 39 at Slide Mountain would be *reduced* from an area of 37 square kilometers, as now proposed, to an area of 12 square kilometers; DTV operation by KTVN on Channel 13 from Slide Mountain would eliminate this interference entirely. Engineering Statement at Figure 1. DTV operation of KTVN on Channel 13 from Slide Mountain would similarly cause a negligible degree of interference to the NTSC operation of Station KOVR(TV), Channel 13, Stockton, California. As noted in the Engineering Statement at p.5, despite the exceedingly minor nature of this potential interference, were the DTV allotment for KTVN to be made on Channel 13 at Slide Mountain, STI will agree to a condition with respect to the allotment that KTVN utilize a directional antenna to minimize any resulting interference.

Alternatively, if the Commission ultimately determines that it will not make any initial DTV allotments at locations that vary from the licensed NTSC site, STI submits that Channel 13 should be specified as KTVN's DTV allotment from McClellan Peak. DTV operation on Channel 13 would cause interference to Station KOVR's NTSC operation in an area of 33 square kilometers, representing only 0.1 percent of the noise-limited service area of the station calculated with reference to Longley-Rice methodology, Engineering Statement at Figure 1, and well within the parameters employed by the Commission in constructing the DTV Table.

Engineering Statement at 3-4.

In summary, STI submits that the DTV allotment for KTVN which provides the most interference-free coverage is an allotment of Channel 13 at Slide Mountain, followed in STI's order of preference by Channel 39 at Slide Mountain and Channel 13 at McClellan Peak. The present allotment of Channel 39 at McClellan Peak affords the smallest range of service, both in terms of population and area, of any of of the options discussed above. STI requests that the DTV allotment for KTVN be specified as Channel 13, with a site restriction specifying operation from Slide Mountain [3], and, if deemed necessary by the Commission, a condition that KTVN utilize a directional antenna to minimize any interference to the NTSC operation of Station KOVR in Stockton, California. Alternative allotments on Channel 39 at Slide Mountain or Channel 13 at McClellan Peak are also proposed, corresponding to the magnitude of improvement in the size of the population and area served by KTVN's DTV operations over the presently proposed allotment of Channel 39 at McClellan Peak.

As noted at the outset of these comments, STI is a signatory to the comments of the Broadcasters' Caucus and generally supports those comments. Based upon its experience serving mountainous regions on KTVN, STI is especially concerned that the Commission not

---

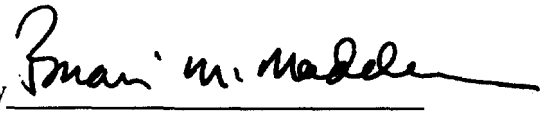
[3] The Commission has proposed that any short-spaced or otherwise non-conforming allotment for DTV channels for existing stations must be made during the initial assignment phase. Notice at 45. STI believes that existing licensees should be accorded a more flexible assignment procedure, so as to enhance the ability to maximize DTV operations as the technology for DTV evolves and the roll-out of service proceeds. The Commission's proposal in this regard, if adopted, would require that the requested allotment of Channel 13 at Slide Mountain be made as a part of the initial DTV Table; the use of Channel 13 for DTV operation of KTVN from Slide Mountain would be short-spaced to the NTSC operation of Station KOVR if subject to the proposed minimum separation standards for new stations and for subsequent modifications of existing stations set forth in the Notice. *See* Engineering Statement at 7-8.

adopt the core-channel proposal discussed in the Notice because of the resulting substantial adverse impact on service rendered by existing television translators. The Engineering Statement includes, as an appendix, a map depicting the current distribution of KTVN's signal to numerous small, and in many cases relatively isolated communities, through a network of television translator stations. As acknowledged by the Commission, Notice at 28, implementation of the core-channel plan would create significant displacement problems; the Broadcasters' Caucus believes the adverse impact of this plan on translator stations to be much more severe than the Commission's estimate. Retention of a maximum degree of spectrum flexibility will inevitably minimize the potential loss of service now provided by translator stations, and STI accordingly urges that the Commission reconsider and discard the core-channel proposal.

For the reasons set forth above, STI respectfully requests that the DTV allotment for KTVN be modified to specify operation on Channel 13 for Slide Mountain, or alternatively on Channel 39 from Slide Mountain or Channel 13 from McClellan Peak.

Respectfully submitted,

SARKES TARZIAN, INC

By 

Brian M. Madden
Leventhal, Senter & Lerman
2000 K Street, NW
Suite 600
Washington, D.C. 20006

Its Attorneys

November 21, 1996

Bernard R. Segal, P.E.
Consulting Engineer
Washington, DC

ORIGINAL

ENGINEERING STATEMENT
PREPARED FOR
SARKES TARZIAN, INC.
MM DOCKET NO. 87-268

The instant engineering statement has been prepared on behalf of Sarkes Tarzian, Inc. in support of their Comments in the FCC's proceeding in MM Docket Number 87-268 concerning Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service.

Sarkes Tarzian, Inc. is the licensee of stations KTVN, Reno, Nevada, and WRCB, Chattanooga, Tennessee, and these Comments relate particularly to KTVN, and generally to both stations. KTVN operates on VHF channel 2 with maximum effective radiated power of 89.1 kilowatts and antenna radiation center height above average terrain of 656 meters. The KTVN transmitter is located atop McClellan Peak at geographic coordinates 39° 15′ 28″ NL, 119° 42′ 36″ WL.

The FCC allotment plan specifies use of DTV channel 39 for KTVN with a DTV/NTSC area match of only 77.5 percent. The plan proffered by the

Broadcasters Caucus, also, contemplates use of channel 39 for KTVN with 76.5 percent area matching.

Sarkes Tarzian, Inc. has participated in the regional meetings sponsored by the Broadcasters Caucus, and pursuant to the procedures adopted therein, Sarkes Tarzian, Inc. requested that several other options for KTVN be reviewed. Those options were believed to provide an improvement over the channel 39 McClellan Peak proposal included in both the FCC and Broadcasters Caucus plans.

Specifically, the following alternative options were requested for review:

1. KTVN at McClellan Peak on channel 13;

2. KTVN at Slide Mountain on channel 39;

3. KTVN at Slide Mountain on channel 13.

Slide Mountain is by far the preferred site in the Reno area for providing maximum coverage because of its singular relationship with respect to important population centers. Facilities at other sites, including McClellan Peak, cannot reach as many of those population centers because of the mountainous terrain. Sarkes Tarzian, Inc. sought operation from Slide Mountain many years ago, but was thwarted by FCC separation constraints and the refusal by the FCC to grant a waiver despite a showing of equivalent protection that would be afforded the short-spaced station. However, a waiver based on the provision of equivalent protection was authorized for the less short-spaced McClellan Peak site.

With the advent of DTV, the same separation constraints are no longer applicable, and as is demonstrated from the accompanying tabulation of Figure 1, which reflects the Summary results of the studies performed by the Broadcasters Caucus on behalf of Sarkes Tarzian, Inc., the superiority of Slide Mountain to McClellan Peak is clearly evidenced insofar as the provision of service to populated centers in the Reno area is concerned. The notes

accompanying the Summary indicate the extent of interference that would be caused by each alternate KTVN operation to other NTSC and DTV stations.

For the purposes of the studies for Slide Mountain, an assumed site corresponding to the site of channel 8 NTSC station KOLO-TV, was used. DTV channel 9 has been proposed for KOLO-TV use in both the FCC and Broadcasters Caucus plans. The geographic coordinates for KOLO-TV are: 39° 18′ 49″ NL, 119° 53′ 00″ WL. An antenna height above ground level of 43 meters (the same as for KOLO-TV) was specified.

It is clear from the Summary results that operation by KTVN at McClellan Peak on channel 13 is superior to the operation on channel 39 proposed in both the FCC and Broadcasters Caucus's plans. However, both the channel 39 and channel 13 operations on Slide Mountain provide superior results for KTVN than for either channel 39 or channel 13 operation at McClellan Peak. At the same time, the adverse impact of KTVN Slide Mountain operation on other stations, either on channel 39 or on channel 13, is not beyond

the range of interferences being considered acceptable as part of this rule-making proposal.[1]

For the KTVN, Slide Mountain, channel 13 option, new interference to KOVR, Stockton, channel 13, is predicted. Insofar as any new interference to KOVR that would result from KTVN Slide Mountain, channel 13 operation, Sarkes Tarzian, Inc. agrees to the use of a directional antenna to eliminate that new interference.[2] That operation is Sarkes Tarzian, Inc.'s preferred mode for KTVN. The second alternate mode in order of preference would be operation from Slide Mountain on channel 39. The next preferred mode of operation would be for McClellan Peak operation on channel 13, and the least preferred mode would be from McClellan Peak on channel 39.

---

[1] Because of the differences in planning factors used by the FCC *vis-a-vis* the Broadcasters Caucus, a direct apples-to-apples comparison is not possible.

[2] Until final planning factors are adopted and calculation procedures are codified, it is not possible to determine the radiation limitations for the directional antenna.

Since Slide Mountain and McClellan Peak are approximately 20 miles apart, it was not possible to determine the percent area replication that would result for KTVN operation from that location relative to the present NTSC channel 2 operation at McClellan Peak. The computer algorithm is not designed to make such a determination when different sites are employed. However, a comparison of the noise-free coverage for Slide Mountain DTV, channel 9 station KOLO-TV, with effective radiated power of 5.5 kilowatts pursuant to the FCC plan (see Figure 2) with the KTVN channel 39 McClellan Peak operation with effective radiated power of 3340 kilowatts pursuant to the FCC plan (see Figure 3), clearly shows that operation from Slide Mountain with very much lower high-band VHF power provides far superior coverage than from McClellan Peak with much greater power on UHF channel 39.[3] The Broadcasters Caucus's suggested replication power of 16.4 kilowatts for KTVN channel 13 operation at Slide Mountain with a restriction in radiation toward KOVR should produce no worse results than for KOLO-TV. A side-by-side comparison of Figures 2 and 3 reveals that the Slide Mountain coverage encompasses virtually all the area

[3] The studies of Figures 2 and 3 were prepared by TA Services of Boulder, Colorado. TA Services uses the FCC allotment table and planning factors.

encompassed by the McClellan Peak coverage plus additional areas beyond. Hence, it stands to reason that the percent of land area replication would be greater for KTVN for operation from Slide Mountain than from McClellan Peak.

Sarkes Tarzian, Inc., in general, supports the Comments expressed by the Broadcasters Caucus, and in particular, hereby stresses the importance of retaining the entire TV spectrum so as to not jeopardize the delivery of signals by translator stations to rural locations. Station KTVN's programming is relayed to many small towns and villages which are beyond the normal reach of KTVN. The accompanying Appendix, prepared by Al Richards, the KTVN chief engineer, identifies the translators which rebroadcast KTVN programming and their locations.

In summary, Sarkes Tarzian, Inc. supports the Comments by the Broadcasters Caucus and requests the FCC incorporate in its final Table of Allotments channel 13 use for KTVN at Slide Mountain with whatever appropriate restriction would limit causing new interference to station KOVR. An initial allotment that specifies the use of Slide Mountain is necessary since

a later modification under the FCC's proposal for new and future changes would not be possible because of short spacing considerations.

Finally, Sarkes Tarzian, Inc. urges the Commission to retain the full spectrum so as to avoid decimation of the service provided by translators.

I declare under penalty of perjury that the foregoing is true and correct. Executed on November 21, 1996.

Bernard R. Segal, P.E.

ENGINEERING STATEMENT
PREPARED FOR
SARKES TARZIAN, INC.
MM DOCKET NO. 87-268

Summary of Broadcasters Caucus Results
for KTVN Suggested Alternative Operations

	Interference-Free Population	Interference-Free Area (sq. km)
McClellan Peak — KTVN, Ch. 2, 89.1 kW(MAX-DA), 656 m (Per FCC Table) (Present NTSC)	452,000	35,729
McClellan Peak — Ch. 39, 1692 kW, 656 m	397,165	27,662
McClellan Peak — Ch. 13, 41.4 kW, 656 m	445,108	31,440
Slide Mountain — Ch. 39, 277 kW, 897 m	474,302	32,385
Slide Mountain — Ch. 13, 16.4 kW, 897 m	528,660	39,074

NOTES:

1) KTVN, McClellan Peak, Ch. 39, causes new interference to ATV, KNPB, Reno, Ch. 43, in an area of 37 square kilometers (km^2). 37 km^2 represents 0.8% of the 4740 km^2 Longley-Rice noise limited service area for KNPB.

2) KTVN, McClellan Peak, Ch. 13, causes new interference to NTSC, KOVR, Stockton, CA, Ch. 13, in an area of 33 km^2. 33 km^2 represents 0.1% of the 36,665 km^2 Longley-Rice noise-limited service area for KOVR.

3) KTVN, Slide Mountain, Ch. 39, causes new interference to:

   a) ATV, KCNS, San Francisco, Ch. 39, in an area of 682 km^2. Total interference to ATV, KCNS is 799 km^2 representing a 99.5% area match.

   b) ATV, KNPB, Reno, Ch. 43, in an area of 12 km^2. 12 km^2 represents 0.3% of the 4740 km^2 Longley-Rice noise limited service area for KNPB.

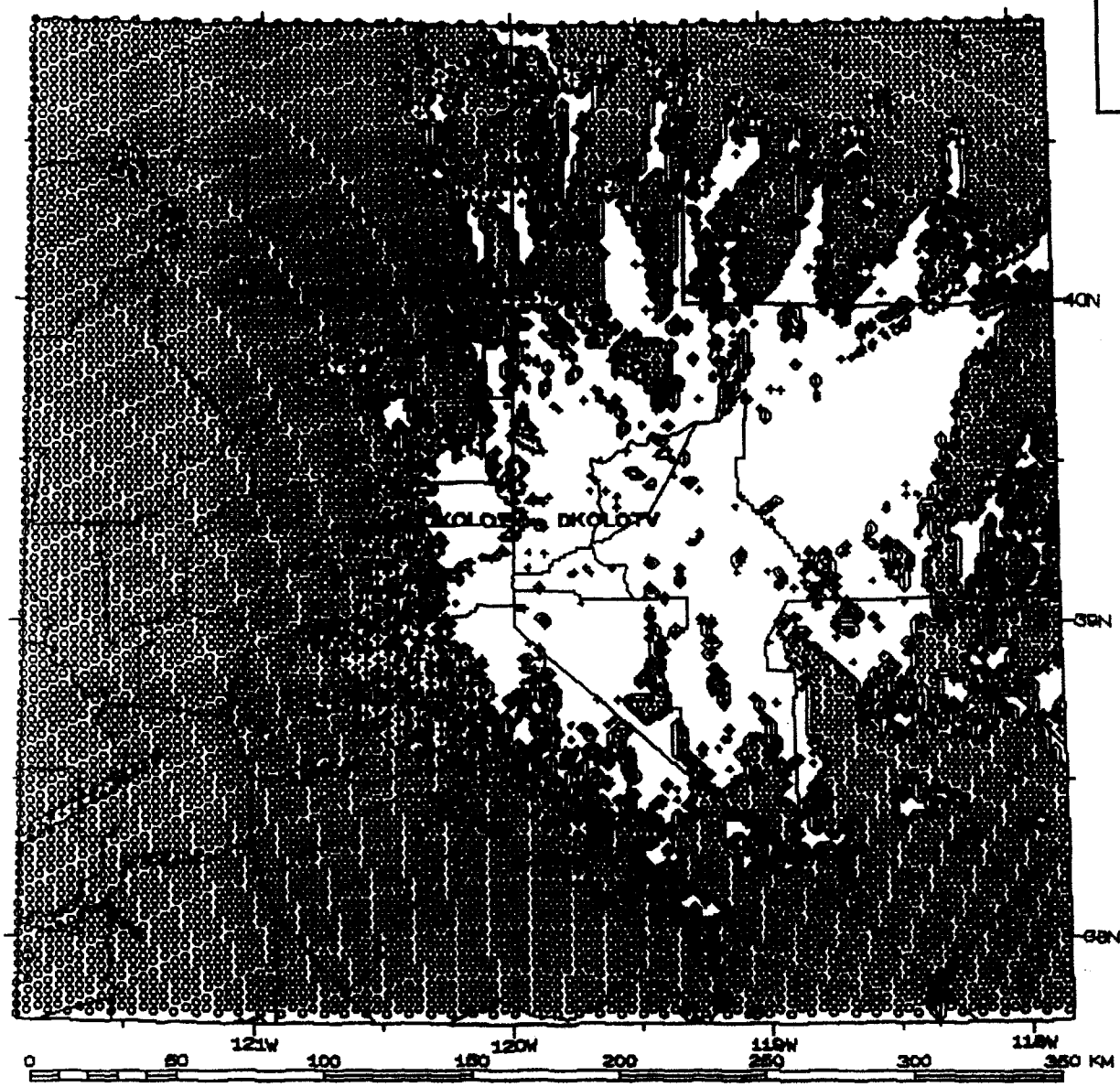
4) KTVN, Slide Mountain, Ch. 13, causes new interference to NTSC KOVR, Stockton, Ch. 13, in an area of 854 km^2. 854 km^2 represents 2.3% of the 36,665 km^2 Longley-Rice noise-limited service area for KOVR.

NOVEMBER 1996

KOLO-TV, RENO, NEVADA
DTV CH 9 5.5 KW 893 METERS
(SLIDE MOUNTAIN)
NOISE LIMITED SERVICE

Prepared for
SARKES TARZIAN, INC.

Bernard R. Segal, P.E. Consulting Engineer



Signal to Interference ratio

No Interference
Area: 30390. sq km
Population: 406000.
Households: 156000.

HDTV Interference
Area: 0. sq km
Population: 0.
Households: 0.

NTSC Interference
Area: 6190. sq km
Population: 69000.
Households: 28000.

Signal below minimum

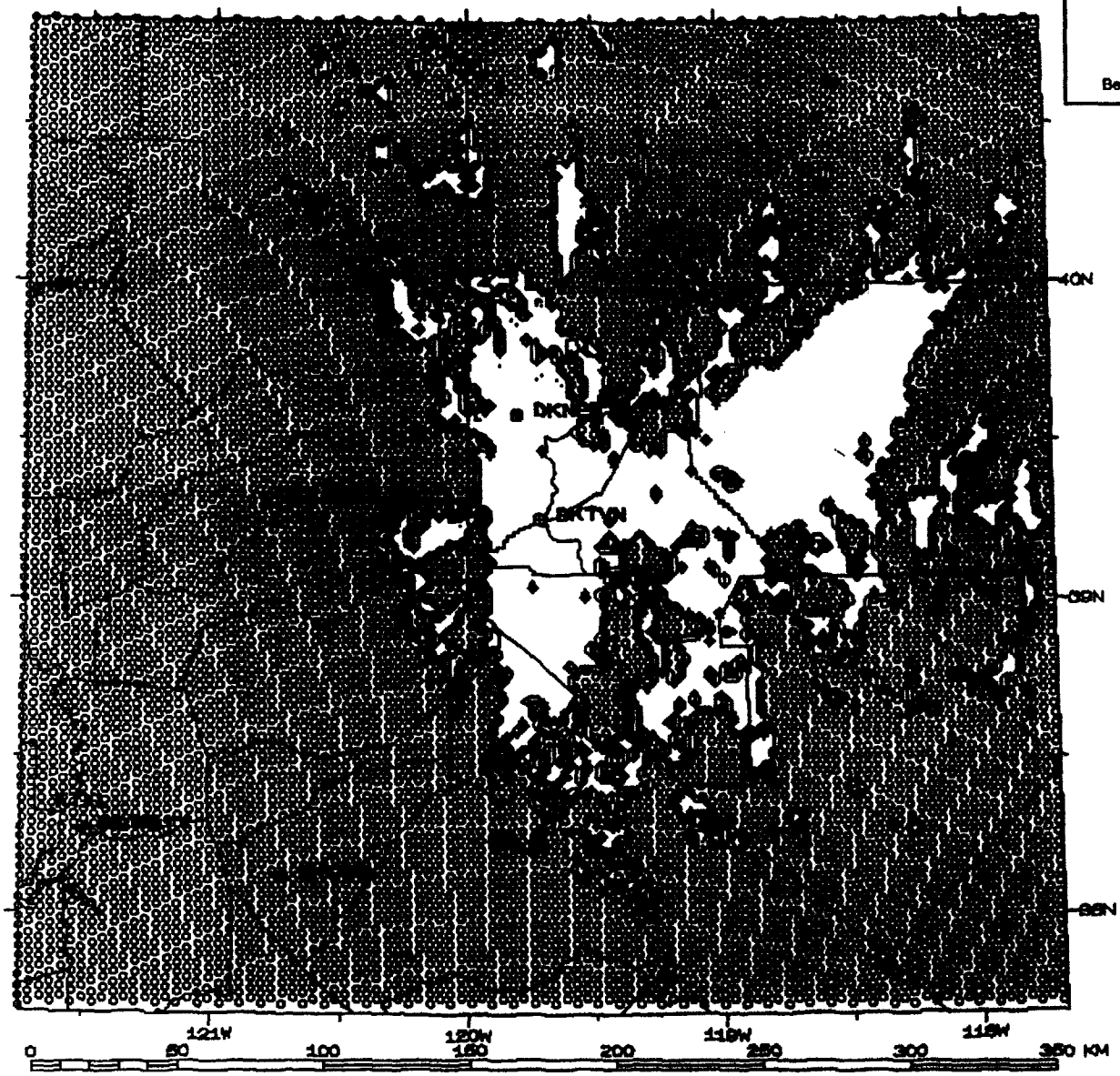
Figure 2

NOVEMBER 1996

KTVN, RENO, NEVADA
DTV CH 39 3340 KW 656 METERS
(MC CLELLAN PEAK)
NOISE LIMITED SERVICE

Prepared for
SARKES TARZIAN, INC.

Bernard R. Segal, P.E. Consulting Engineer



Signal to Interference ratio

No Interference
Area: 21080. sq km
Population: 357000.
Households: 144000.

HDTV Interference
Area: 590. sq km
Population: 5000.
Households: 2000.

NTSC Interference
Area: 50. sq km
Population: 0.
Households: 0.

Signal below minimum

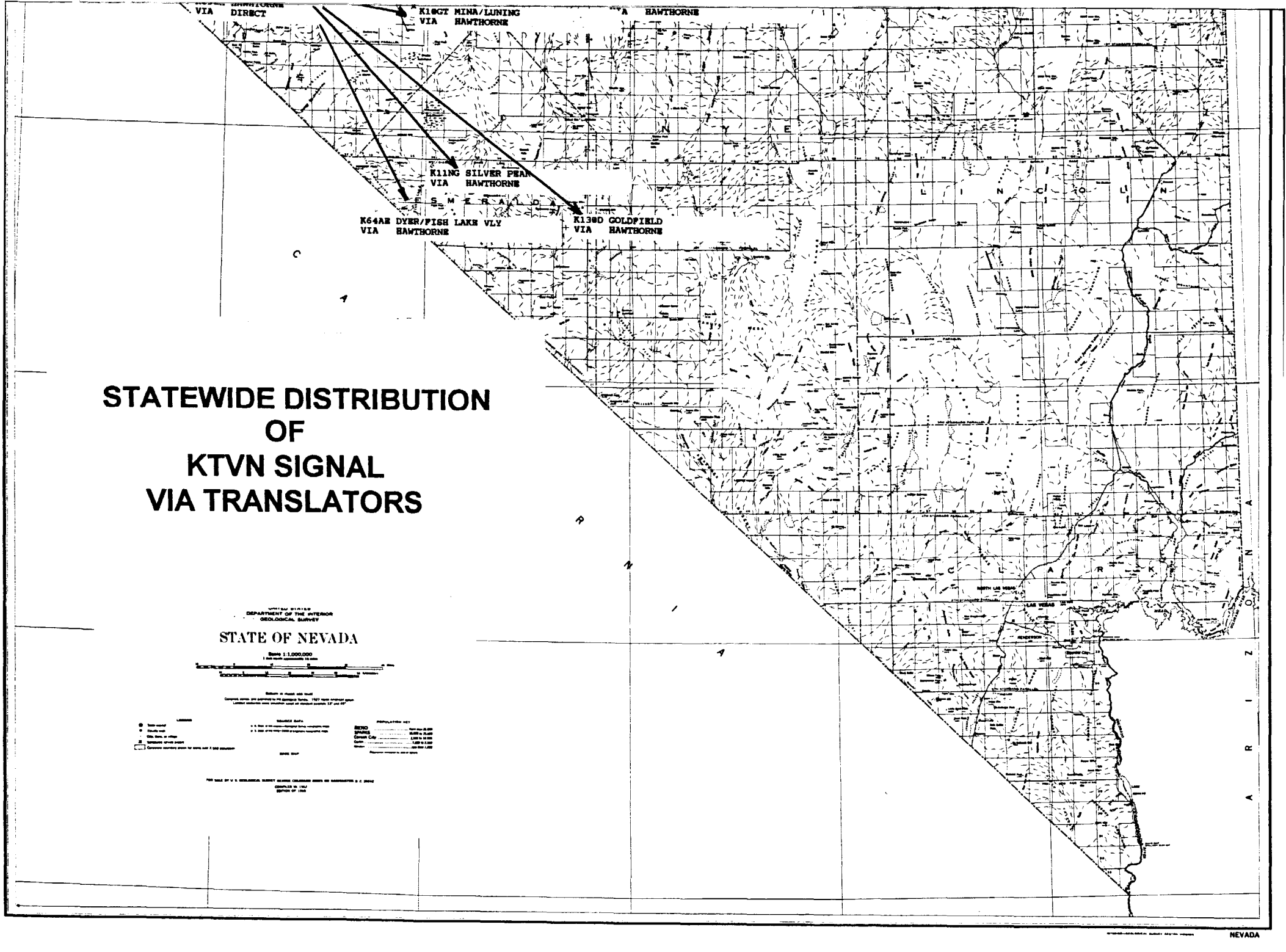
Figure 3

ENGINEERING STATEMENT
PREPARED FOR
SARKES TARZIAN, INC.
MM DOCKET NO. 87-268

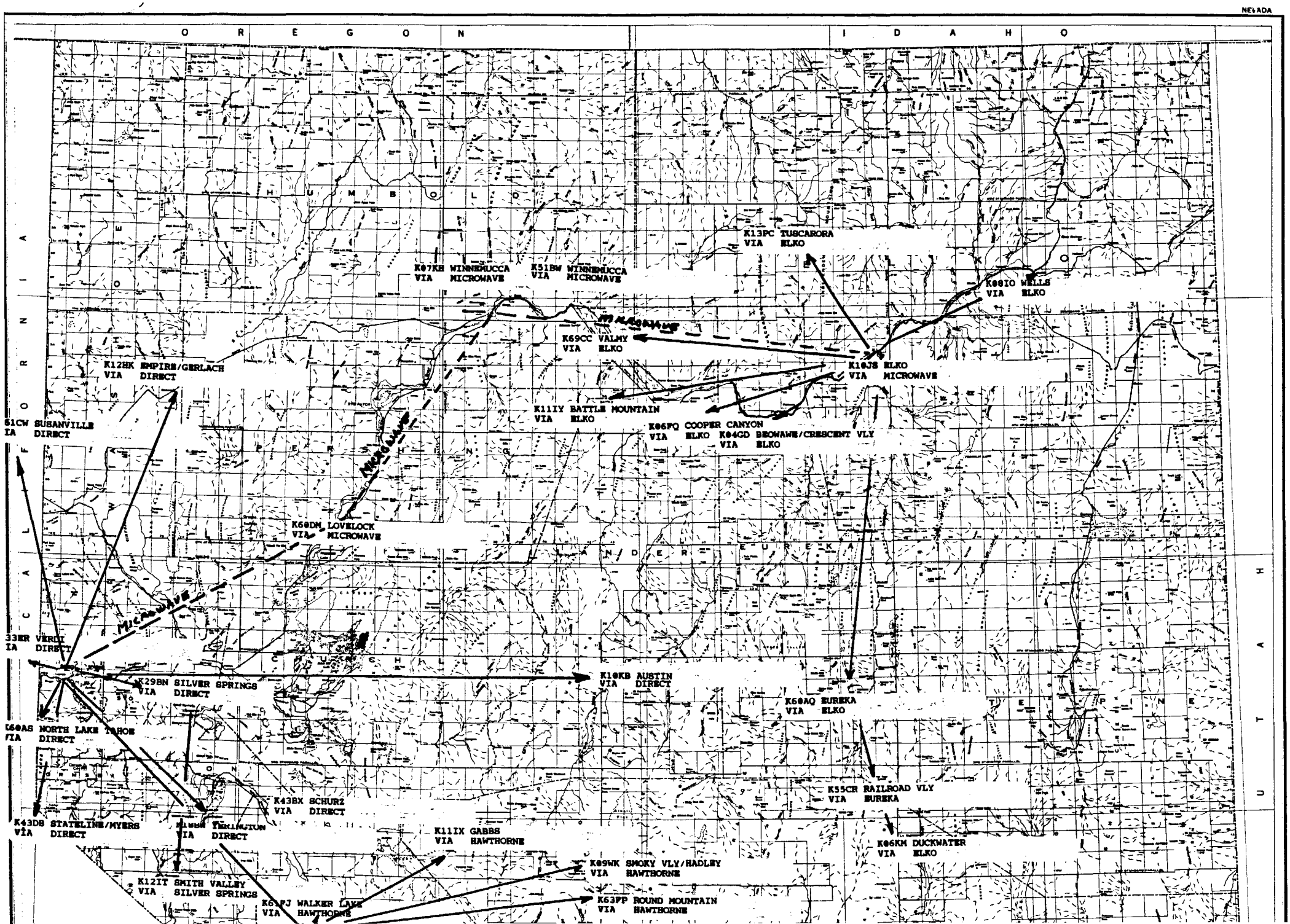
APPENDIX

Statewide Distribution of KTVN Signals via Translators

Prepared by
Al Richards, Chief Engineer
Station KTVN



STATEWIDE DISTRIBUTION OF KTVN SIGNAL VIA TRANSLATORS


NEVADA
O R E G O N
I D A H O
C A L I F O R N I A
U T A H
H U M B O L D T
P E R S H I N G
C H U R C H I L L
L A N D E R
E U R E K A
T E L E P I N E
K07KH WINNEMUCCA VIA MICROWAVE
K51BW WINNEMUCCA VIA MICROWAVE
K13PC TUSCARORA VIA ELKO
K08IO WELLS VIA ELKO
K69CC VALMY VIA ELKO
K10JS ELKO VIA MICROWAVE
K12HK EMPIRE/GERLACH VIA DIRECT
K11IY BATTLE MOUNTAIN VIA ELKO
K06FQ COOPER CANYON VIA ELKO
K04GD BEOWAWE/CRESCENT VLY VIA ELKO
61CW SUSANVILLE IA DIRECT
K60DM LOVELOCK VIA MICROWAVE
Microwave
Microwave
33ER VERDI IA DIRECT
K29BN SILVER SPRINGS VIA DIRECT
K10KB AUSTIN VIA DIRECT
K60AQ EUREKA VIA ELKO
60AS NORTH LAKE TAHOE IA DIRECT
K43BX SCHURZ VIA DIRECT
K55CR RAILROAD VLY VIA EUREKA
K43DB STATELINE/MYERS VIA DIRECT
K11IX GABBS VIA HAWTHORNE
K06KM DUCKWATER VIA ELKO
K09WK SMOKY VLY/HADLEY VIA HAWTHORNE
K12IT SMITH VALLEY VIA SILVER SPRINGS
K63PP ROUND MOUNTAIN VIA HAWTHORNE